

DEPARTMENT OF ENVIRONMENTAL PROTECTION
Departmental Program Structure and Outcome Measures



AIR
WATER
ENERGY
FOREST PRESERVATION
COMPLIANCE
OUTREACH
SOLID WASTE

Mission: *To protect and enhance the quality of life in our community through the conservation, preservation, and restoration of our environment guided by principles of science, resource management, sustainability, and stewardship.*

Outcome-based accountability in environmental protection is built on a commitment to ensure that every dollar spent works toward improving the conditions of the environment in Montgomery County. If the Department of Environmental Protection is to be accountable, we must be able to demonstrate that our programs make a difference in the lives of the people we serve.

DEPARTMENTAL OUTCOMES

	FY03 ACTUAL	FY04 ACTUAL	FY05 ACTUAL	FY06 BUDGET	FY07 CE REC
Ambient Air					
Number of days the County is in noncompliance with National Ambient Air Quality Standards for ozone	8	1	2	3	3
Water					
Percentage of residential stormwater management facilities in the County that have joined the Stormwater Facility Maintenance Program ^a	32	45	42	51	67
Percentage of County groundwater meeting drinking water standards ^b	81	81	88	88	88
Percentage of Countywide Stream Protection Strategy (CSPS) subwatersheds monitored in the fiscal year with an improved rating ^c	6.2	6.0	9.0	12	10
Energy					
Percentage change in residential energy consumption ^d	+12	+6	+3	0	0
Percentage change in non-residential energy consumption ^d	+19	+10	+16	0	0
Forest Preservation					
Percentage of County meeting urban/suburban tree canopy cover goals ^e	25	25	25	25	25
Compliance					
Number of complaints and information requests relating to the environment received by the Department of Environmental Protection	1,541	1,757	1,545	1,800	1,700
Outreach					
Number of website hits on Department of Environmental Protection home page ^f	3,200,000	2,500,000	3,848,475	4,000,000	5,000,000
Solid Waste					
Percentage of County solid waste facilities in compliance with State and Federal standards	80	100	100	100	100

Notes:

^aThis program, which began in March, 2002, is designed to ensure that the County covers the costs needed to meet Federal stormwater management regulations. The Water Quality Protection Charge shifts stormwater maintenance costs from private to public funding: a charge based on a property's impervious area has appeared on the property tax bill since July 2002. Property owners can also choose to have the County maintain stormwater facilities on their property by entering them into the Water Quality Protection Charge Program.

^bThe percentage of County groundwater meeting drinking water standards is determined through use of the Baseline Monitoring Program recommended by the Groundwater Protection Strategy Work Group.

^cThe Countywide Stream Protection Strategy (CSPS) ranks streams based on biological life supported (fish, aquatic insects) and channel habitat conditions as monitored at 300 stations. About 20% of the stations are sampled each year, enabling reevaluation of stream conditions over a five-year cycle.

^dPercentage increase or decrease in per capita consumption of fossil fuels from 1995 base year (from Montgomery County Department of Finance).

^e"Residential" includes all uses of energy for residential purposes. "Non residential" includes all industrial and commercial energy use in the County. Transportation fuels are not included in this analysis.

^fThe percentage of the County meeting urban/suburban tree canopy coverage goals is estimated; information is not yet available for 20% of the County.

¹The fluctuation in the number of website hits is due largely to increased outreach regarding the website coupled with changes in tracking capabilities.

⁹This reflects the immediate objective of avoiding an increase in per capita energy consumption. The long-term goal is to reduce per capita energy consumption below the baseline 1995 level.

ENVIRONMENTAL PROTECTION

PROGRAM:

Administration

PROGRAM ELEMENT:

Water and Wastewater Management and Planning

PROGRAM MISSION:

To plan for the timely, logical, economical, and environmentally sound provision of public water and sewer service to adequately satisfy County development/growth demands

COMMUNITY OUTCOMES SUPPORTED:

- Meeting consumer and business needs for cost-effective and timely public water and sewer service
- Provision of public water and sewer service consistent with Smart Growth objectives and County land-use plans
- Timely provision of public water and sewer service to relieve public health problems resulting from failed wells and septic systems
- Responsiveness to development industry needs by providing accurate and timely reviews of development plans and subdivision plats

PROGRAM MEASURES
Outcomes/Results:
Service Quality:

Average time to complete plat reviews (days)	14	16	7	9	8
Average time to process map amendments (days):					
- Administrative delegation process - with hearing ^a	126	120	187	80	^{b,c} 135
- Administrative delegation process - without hearing ^a	204	304	247	60	^{b,c} 135
- County Council process	255	296	211	170	^b 180

Efficiency:

Development plans and plats reviewed per workyear	1,038	900	928	1,120	1,040
Average review cost per plan or plat (\$) ^d	76	99	97	84	95

Workload/Outputs:

Development plans reviewed	211	218	219	220	220
Record plats reviewed	308	232	245	340	300
Map amendments reviewed	61	56	^e 62	65	60

Inputs:

Workyears (development plan and plat review)	0.5	0.5	0.5	0.5	0.5
Expenditures (development plan and plat review) (\$000) ^d	39.5	44.6	44.8	46.8	49.6

Notes:

^aUnder the administrative process, the County Council delegates to the Director of the Department of Environmental Protection the authority to grant Water and Sewer Plan amendments (usually service area category changes) under a limited set of circumstances as defined in the Plan.

^bThe Department recently revised the schedules for the collection and processing of Water and Sewer Plan map amendments, as they relate to the timing of the Department's quarterly administrative hearings and the County Executive's semi-annual transmittals to the County Council. These new schedules provide the public, the development industry, and other agencies with clearly defined and reliable schedules on which to base their expectations, and are intended to improve the Department's amendment processing times.

^cAll map amendments handled via the administrative process will now be scheduled for action as part of the quarterly hearing process, regardless of whether or not they require a hearing under the County's policies. Consequently, it is expected that processing times for these two groups of amendments will be the same.

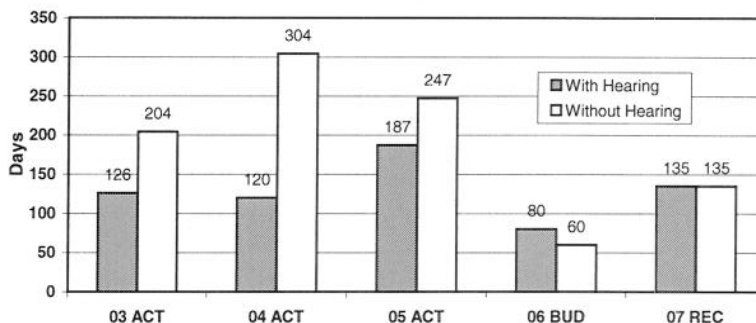
^dThe expenditures shown reflect staff resources only.

^eThe total number of FY05 amendments reviewed includes two Department-initiated amendments with multiple owners. These two amendments - for the Bryants Grove (Cloverly) and Liberty Heights (Germantown) neighborhoods - addressed service area changes for a total of 57 properties.

EXPLANATION:

The County's Water and Sewer Plan policies for administrative delegation of amendment actions allow some non-controversial Plan amendments to bypass the public hearing process. These cases involve issues such as public health problems, properties abutting existing mains, non-policy text amendments, etc. The purpose of the non-hearing process was to reduce processing times for those qualifying map and text amendments, providing more efficient customer service. However, the most critical of these cases - health problems and abutting mains - are typically addressed by direct Department service actions. As a result, non-hearing processing times - as they relate to the formal amendment approval process - were actually longer than for amendments that require a hearing. Changes to the Department's scheduling in FY06 will eliminate this two-tiered approach (see footnote "b" above), resulting in equal processing times for both types of amendments.

**Average Time to Process Map Amendments:
Administrative Delegation Process**



PROGRAM PARTNERS IN SUPPORT OF OUTCOMES: Maryland-National Capital Park and Planning Commission, Washington Suburban Sanitary Commission, Department of Permitting Services, County Council, municipal governments, Maryland Department of the Environment and Office of Planning, local civic and environmental organizations, development industry.

MAJOR RELATED PLANS AND GUIDELINES: Montgomery County Comprehensive Water Supply and Sewerage Systems Plan, Montgomery County General Plan, local area master and sector plans, Washington Suburban Sanitary Commission guidelines and regulations, State law governing the preparation of and amendments to comprehensive water supply and sewerage systems plans.

ENVIRONMENTAL PROTECTION

PROGRAM:

Environmental Policy and Compliance

PROGRAM ELEMENT:

Compliance Monitoring at County Division of Solid Waste Services Facilities

PROGRAM MISSION:

To assure that County solid waste facilities are in compliance with Federal, State, and local environmental regulations and permits

COMMUNITY OUTCOMES SUPPORTED:

- Effective and efficient operation of County waste facilities
- Reduced pollution of County air, streams, and groundwater, and enhancement of the environment

PROGRAM MEASURES

	FY03 ACTUAL	FY04 ACTUAL	FY05 ACTUAL	FY06 BUDGET	FY07 CE REC
Outcomes/Results:					
Percentage of facilities in compliance	80	100	100	100	100
Number of violations	1	0	0	0	0
Service Quality:					
Ratio of actual to planned samples collected	^d 0.85	^d 1.03	1.05	1.00	1.00
Efficiency:					
Samples collected per workyear ^a	143.2	181.7	208.1	155.7	209
Average laboratory cost per sample (\$) ^b	108	67	^e 98	^e 153	122
Workload/Outputs:					
Number of environmental samples collected	^d 806	^d 981	997	802	1076
Inputs:					
Laboratory/consultant expenditures (\$000)	87	66	98	123	132
Workyears ^c	5.6	5.4	4.8	5.2	5.2

Notes:

^aThe number of samples collected per workyear can vary greatly due to unexpected requirements for more intensive monitoring and special studies.

^bThe average laboratory cost per sample analyzed depends on the types of tests being undertaken and their relative proportions. For example, nitrate tests cost about \$15 each, whereas Dioxin tests can cost as much as \$1,600 each.

^cWorkyears include only County program staff.

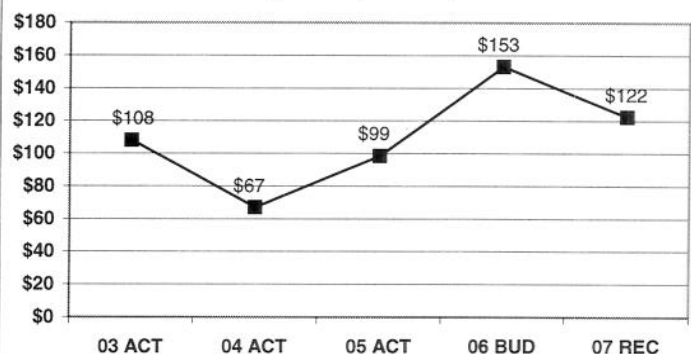
^dFY03 and FY04 sampling of the Beantown Dump was less than expected because design changes reduced the number of vents by 12 percent.

^eThe cost per sample increased due to increased lab fees and the need for fewer gas samples, which are measured in the field.

EXPLANATION:

This program monitors County solid waste facilities run by the Division of Solid Waste Services (DSWS) in the Department of Public Works and Transportation for compliance with Federal, State, and local environmental regulations. Five facilities are monitored: the Oaks Landfill, the Gude Landfill, the Transfer Station, the Resource Recovery Facility, and the Dickerson Yard Trim Composting Facility. The Department of Environmental Protection (DEP) acts as both an environmental monitor and a technical consultant to DSWS. Despite DEP's limited direct authority to influence outcomes (other than the negative one of noting and citing violations), DEP has forged a successful relationship with DSWS in creating a solid waste management system that protects both human health and the environment.

Average Cost per Sample



PROGRAM PARTNERS IN SUPPORT OF OUTCOMES: Division of Solid Waste Services, Office of the County Attorney, Oaks Landfill Advisory Commission, Sugarloaf Citizens Association.

MAJOR RELATED PLANS AND GUIDELINES: Resource Conservation and Recovery Act Permit, Federal Clean Water Act, National Pollutant Discharge Elimination System (NPDES) Municipal Stormwater Permit, County 10-Year Solid Waste Plan, County Stream Protection Strategy, Federal Clean Air Act, Resource Recovery Facility Air Permit, Oaks Final Closure Plan, New Beantown Dump Guidelines.

ENVIRONMENTAL PROTECTION

PROGRAM:

Environmental Policy and Planning

PROGRAM ELEMENT:

Countywide Forest Preservation Strategy

PROGRAM MISSION:

To protect and restore natural forest ecosystems and urban tree canopy to improve watershed protection and achieve other environmental, energy reduction, and cost-saving benefits

COMMUNITY OUTCOMES SUPPORTED:

- Increased tree and forest cover to enhance the quality of life and improve habitat for birds, aquatic, and terrestrial wildlife
- Moderation of thermal "heat island" effects from urban surfaces, reducing energy needs and heating/air conditioning costs
- Improved air and water quality from filtering of pollutants
- Moderation of runoff impacts through increased urban tree canopy and forest cover

PROGRAM MEASURES

	FY03 ACTUAL	FY04 ACTUAL	FY05 ACTUAL	FY06 BUDGET	FY07 CE REC
Outcomes/Results:					
Acres of riparian stream buffer reforested ^a	178	93	121	300	300
Ratio of dead or damaged street trees removed to trees replaced	0.38:1	0.93:1	0.43:1	0.82:1	0.84:1
Service Quality:					
IMPROVED SERVICE QUALITY MEASURES ARE BEING DEVELOPED					
Efficiency:					
Cost per tree for tree pruning (\$) ^b	47	85	150	150	150
Average cost per tree for planting (\$)	112	125	122	^c 125	^c 129
Workload/Outputs:					
Street trees pruned per year ^d	721	742	882	800	16,300
Street trees planted per year	1,702	1,522	1,560	^c 1,463	^c 1,431
Acres of upland forest protected ^e	449	357	279	500	500
Acres of riparian forest protected ^e	556	414	858	1,000	1,000
Inputs:					
Expenditures - Department of Environmental Protection (\$000) ^f	261	^g 289	310	^h 371	ⁱ 185
Expenditures - Department of Public Works and Transportation (\$000) ^f	1,576	1,346	2,059	2,515	ⁱ 6,163
Workyears - Department of Environmental Protection	0.75	1.0	1.0	1.25	1.25
Workyears - Department of Public Works and Transportation	^j 15.5	10.2	^k 15.5	15.5	16.0

Notes:

^aRiparian forests are wooded areas adjacent to streams that support a unique plant and animal community. This measure is largely a function of developer activity.

^bThis is the cost per tree for emergency pruning only. The cost per tree for regular maintenance pruning is expected to decline after all street trees have received initial pruning on a five to seven year cycle. Most street trees have never been pruned, and initial pruning needs are likely to be more extensive.

^cThe street tree planting contract was renewed in the middle of FY06.

^dThis is the number of trees pruned for emergencies only; no routine maintenance has occurred since 1999.

^eThis measure is largely a function of developer activity and includes acres protected through the Open Space Program.

^fThe Department of Environmental Protection budget through FY06 includes costs for staff, street tree plantings, and the gypsy moth suppression program. The Department of Public Works and Transportation budget covers costs for staff, street tree maintenance, dead and hazardous tree removals, and stump removals. In FY07, the tree planting program will be transferred to the Department of Public Works and Transportation.

^gThe actual expenditures include the gypsy moth suppression program and personnel lapse.

^hThe FY06 approved budget includes one-time funding for the initial stages of developing and implementing an asset management system for street trees.

ⁱThe FY07 budget includes \$57,000 for the gypsy moth annual egg mass survey and suppression program and reflects the transfer of the tree planting program to the Department of Public Works and Transportation.

^jIncludes \$2.3 million in Capital Improvement Program funds for a new pro-active tree pruning initiative.

^kThe FY03 and FY05 figures correspond to budgeted rather than actual workyears.

EXPLANATION:

The County Executive's appointed Forest Preservation Task Force assessed the condition of the County's streamside and upland forests and urban tree canopy. The Task Force's October, 2000, final report recommended goals and action items to increase the quantity and improve the quality of forest and tree cover, restore and protect natural forest ecosystems, and enhance the condition of street trees in the County's most intensively developed urban and suburban areas.

About 25 percent of the County's urban and suburban acres meet the goals for tree canopy coverage recommended in the Countywide Forest Preservation Strategy, 2000.

Forty percent of the County's forested stream buffers and uplands are protected by easements and other preservation programs. It is estimated that the tree canopy saves the County over \$34 million per year by removing pollutants from the air and nearly \$429 million per year by mitigating storm water runoff. (The latter is the saving in stormwater facilities that would otherwise be needed to handle the runoff intercepted by the tree canopy.) For these and other reasons, enhancing and increasing the tree canopy represent important goals of the Countywide Forest Preservation Strategy, the Air Protection Strategy, the Countywide Stream Protection Strategy, and the Groundwater Protection Strategy.

The community outcomes and program measures shown above reflect specific initiatives recommended by the Forest Preservation Task Force. The countywide nature of these initiatives requires close coordination and resource allocations among a number of responsible agencies, integrated with the direct participation of volunteer and community groups. The staff and funding requirements listed are for Executive Branch agencies only. The Forest Preservation Task Force recognized that the Maryland-National Capital Park and Planning Commission (M-NCPPC) may also have resource requirements for improving subdivision reviews and other tree preservation activities related to the development permitting process and parks operations.

In the FY05 results shown above, the M-NCPPC is credited with 279 acres of upland forest protection and 858 acres of riparian forest protection. For reforestation, M-NCPPC is credited with 121 acres in riparian areas and 66 in upland areas. The Department of Public Works and Transportation is credited with 7 acres in upland areas in FY05.

PROGRAM PARTNERS IN SUPPORT OF OUTCOMES: Department of Public Works and Transportation; Maryland-National Capital Park and Planning Commission; Washington Suburban Sanitary Commission; Board of Education; Audubon Naturalist Society; Izaak Walton League; Sierra Club; PEPCO; other business, environmental, and community groups.

MAJOR RELATED PLANS AND GUIDELINES: Montgomery County Forest Preservation Strategy (October 2000); Forest Preservation Strategy Update (July 2004); Countywide Stream Protection Strategy (February 1998; July 2003); Chesapeake 2000 Agreement for riparian forest buffer restoration.

ENVIRONMENTAL PROTECTION

PROGRAM:

Environmental Policy and Compliance

PROGRAM ELEMENT:

Enforcement of Environmental Codes

PROGRAM MISSION:

To reduce pollution and improve environmental quality by enforcing environmental codes and regulations through education, public outreach, proactive initiatives, mandatory monitoring, and enforcement activities using the latest scientific techniques and equipment

COMMUNITY OUTCOMES SUPPORTED:

- Improve environmental quality through enforcement
- Reduce pollution and improve the quality of life
- Provide timely and responsive service

PROGRAM MEASURES

	FY03 ACTUAL	FY04 ACTUAL	FY05 ACTUAL	FY06 BUDGET	FY07 CE REC
Outcomes/Results:					
Number of notices of violation issued ^a	198	269	389	250	250
Number of civil citations issued ^a	54	44	39	50	40
Service Quality:					
Percentage of customers satisfied with service ^b	82	90	84	90	85
Percentage of cases resolved within 90 days	79	83	86	80	80
Efficiency:					
Average number of cases per investigator	257	292	258	275	309
Average cost per case (\$) ^c	494	339	297	255	370
Workload/Outputs:					
Number of cases ^c	1,541	1,757	1,545	1,800	1,700
Inputs:					
Expenditures - salaries (\$000) ^d	761	597	459	445	630
Workyears ^d	8.4	7.0	6.1	6.1	6.9

Notes:

^aIncludes Notices of Violation (NOVs) and written Notices. NOVs are designed to warn an individual or organization that it is violating the environmental codes, while written Notices are to inform of a *possible* violation. If a notice of violation goes unheeded, or if the initial violation involves blatantly illegal activity, a civil citation - with a \$500 fine - can be issued.

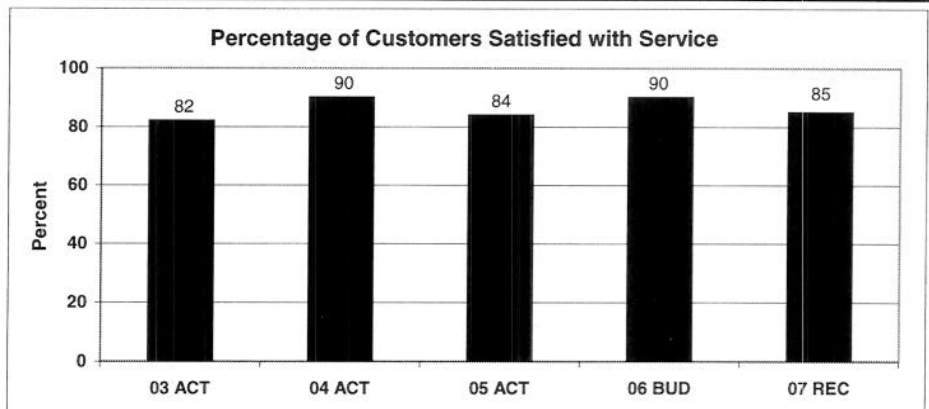
^bIn FY03, 50 percent of closed cases received a customer survey, and the response rate was 24 percent. The response rate was 22 percent in FY04. In FY05, 30 percent of closed cases were surveyed, and the response rate was 21 percent.

^cBeginning in FY04, the number of cases includes inquiries as well as complaints.

^dSome of these staff also perform compliance monitoring at County Division of Solid Waste Services facilities (as reported in the Compliance Monitoring at County Division of Solid Waste Services Facilities program measures display). Since the latter employees have multiple responsibilities and funding sources, it is not possible to accurately allocate the workyears and expenditures between compliance monitoring at County Solid Waste Services facilities and the code enforcement efforts that are the focus of this program element.

EXPLANATION:

The Department of Environmental Protection investigates between 1,400 and 1,750 complaints each year related to air quality, water quality, noise, illegal dumping, and hazardous waste. This chart shows the percentage of customers satisfied with the Department's response to their complaints. It is based on information returned from a customer satisfaction survey. The survey was initiated in 1997, and the number of questionnaires mailed has increased each year. Survey cards are only sent to customers who provided the Department with complete address information.



PROGRAM PARTNERS IN SUPPORT OF OUTCOMES: Maryland Department of the Environment, Department of Permitting Services, Department of Housing and Community Affairs, Office of the County Attorney, Office of the State's Attorney, Environmental Protection Agency, Montgomery County Police, Montgomery County Fire and Rescue Service.

MAJOR RELATED PLANS AND GUIDELINES: Montgomery County Code Chapters 3, 19, 28, 31B, and 48; COMAR; Federal Clean Water Act; National Pollutant Discharge Elimination System Permit.

ENVIRONMENTAL PROTECTION						
PROGRAM: Watershed Management		PROGRAM ELEMENT: Stormwater Facility Inspection and Maintenance Program				
PROGRAM MISSION: To ensure that all residential stormwater management facilities receive adequate structural maintenance to sustain operational effectiveness in protecting local streams and providing flood control as required by County, State, and Federal regulations						
COMMUNITY OUTCOMES SUPPORTED: <ul style="list-style-type: none"> • Protection of streams from stream bank erosion • Protection of aquatic life from sediment and associated pollution • Protection of public safety • Restoration of vital infrastructure 						
PROGRAM MEASURES		FY03 ACTUAL	FY04 ACTUAL	FY05 ACTUAL	FY06 BUDGET	FY07 CE REC
Outcomes/Results:						
Percentage of residential stormwater management facilities in the County that have joined the Stormwater Facility Maintenance Program ^a		32	45	42	51	67
Percentage of residential stormwater management facilities in the County maintenance program that are adequately maintained and in compliance		10	100	^l 60	70	70
Service Quality:						
Percentage of customers satisfied with service ^b		NA	90	85	85	85
Efficiency:						
Cost per facility repaired (\$) ^c		10,000	4,200	3,923	4,500	3,634
Structural maintenance cost per facility in the Stormwater Facility Maintenance Program (\$) ^d						
- Ponds ^c		^h 52,000	1,000	ⁱ 6,607	1,000	780
- Underground facilities		2,700	1,550	1,761	6,400	2,103
Workload/Outputs:						
Number of residential and public stormwater management facilities in the County		805	1,107	1,589	1,458	1,622
Cumulative number of facilities transferred to the Stormwater Facility Maintenance Program ^e		256	501	669	739	1,081
- Ponds		125	271	467	409	754
- Underground facilities ^f		131	230	202	330	327
Number of transferred residential facilities that were inspected		44	133	196	175	274
Number of facilities repaired		48	212	207	^l 350	413
Inputs:						
Expenditures - inspection and maintenance costs (\$000)		900	1,613	1,252	2,993	^m 3,164
Expenditures - personnel costs (\$000)		<u>345</u>	<u>696</u>	<u>728</u>	888	<u>1,033</u>
Total expenditures (\$000) ^g		1,245	2,309	^k 1,980	3,881	4,197
Workyears		7.0	9.0	9.0	^l 10.0	11.70
Notes:						
^a The actual results reflect a lag in recordation.						
^b Customer satisfaction survey cards will be mailed to citizens to assess service quality starting in FY06. FY04 and FY05 were based on telephone surveys.						
^c This cost does not include large sediment removal projects which typically occur in larger regional ponds only once every 5-20 years. Such costs are considered outliers that can distort average maintenance cost information for more typically sized facilities.						
^d These are estimates. Structural maintenance is funded by the Water Quality Protection Charge (which does not pay for nonstructural maintenance).						
^e Only residential stormwater facilities or associated nonresidential stormwater facilities will be transferred into the Stormwater Facility Maintenance Program. Ponds owned by the Maryland-National Capital Park and Planning Commission (M-NCPPC) that drain residential areas are included in the numbers.						
^f The variations in these figures reflect, in part, reclassifications of the type of facility.						
^g Early expenditures were predominantly for government facilities. Expenditures are increasing as more public facilities are transferring into the program.						
^h Many of the ponds brought into the program in FY03 had never been maintained, which resulted in extensive initial maintenance needs and a high cost per pond. It is expected that facilities entering the program in subsequent years will be entering in as-built condition, with a correspondingly lower maintenance requirement.						
ⁱ This number decreased due to the maintenance burden from the recent turnover of M-NCPPC ponds draining residential properties that were not up to standards prior to entering the program.						
^j Includes two very large projects that totaled over \$276,000. Large reconstruction projects have now been moved to the capital budget.						
^k The decrease in expenditures reflects the Department's efforts to reserve funds in view of the absence of a rate increase in FY04.						
^l The increase in staff will produce an increase in the number of facilities that will be inspected and repaired. This includes two workyears for Department of Public Works and Transportation positions.						
^m These expenditures include both operating budget (\$2,714,000) and Capital Improvement Program (\$450,000) funds.						
EXPLANATION:						
This program, which began in March, 2002, is designed to ensure that the County covers the costs needed to meet Federal stormwater management regulations. The relevant revisions to Chapter 19 of the Montgomery County Code were approved by the County Council on November 20, 2000. A Water Quality Protection Charge, based on a property's impervious area, has appeared on the property tax bill since July 2002.						
PROGRAM PARTNERS IN SUPPORT OF OUTCOMES: Department of Permitting Services, Department of Housing and Community Affairs, Department of Public Works and Transportation, Office of the County Attorney, homeowners' associations, commercial property owners, Maryland Department of the Environment, Environmental Protection Agency.						
MAJOR RELATED PLANS AND GUIDELINES: Countywide Stream Protection Strategy, Federal Clean Water Act, National Pollutant Discharge Elimination System Municipal Stormwater Permit, Code of Maryland Regulations.						

ENVIRONMENTAL PROTECTION

PROGRAM:

Watershed Management

PROGRAM ELEMENT:

Water Quality Monitoring; Stream Restoration

PROGRAM MISSION:

To protect citizens and improve the County's environment and quality of life by monitoring and restoring the County's streams and waterways

COMMUNITY OUTCOMES SUPPORTED:

- Protection and enhancement of the environment
- Enhanced quality of life through improved stream conditions
- Greater citizen and business environmental stewardship through direct participation in stream restoration initiatives

PROGRAM MEASURES

	FY03 ACTUAL	FY04 ACTUAL	FY05 ACTUAL	FY06 BUDGET	FY07 CE REC
Outcomes/Results:					
Percentage of CSPA ^a subwatersheds monitored during the fiscal year with increased (improved) rating ^b	6.2	6.0	9.0	12	10
Percentage of CSPA subwatersheds monitored during the fiscal year with decreased (poorer) rating ^b	20.6	22.0	38.0	10	25
Stream restoration miles with improved stream condition (cumulative)	11.6	12.0	16.6	22.8	25.1
Miles of CSPA priority subwatershed streams needing restoration ^c	302	302	297	295	289
Acres of stormwater controls added to developed areas (cumulative)	2,856	2,856	2,856	3,773	4,174
Service Quality:					
Percentage of watersheds with monitoring data accessible via the Web	100	100	100	100	100
Average time to design stream restoration projects (months)	28	^e 38	29	24	24
Efficiency:					
Stream monitoring cost per station (\$)	2,680	3,384	3,933	^d 3,760	^d 3,939
Workload/Outputs:					
Stream stations monitored	97	86	48	^d 69	^d 70
Stream restoration miles completed	0.7	0.4	4.6	5.8	2.3
Number of CSPA priority subwatersheds with project inventories completed	62	67	69	69	69
Number of CSPA priority subwatersheds with projects in design	21	10	12	8	8
Inputs:					
Workyears ^f	5.5	5.5	^d 5.5	^d 5.5	^d 5.5
Expenditures (\$000) ^f	260	291	335	369	392
CIP funding for watershed restoration (\$000) ^g	1,830	2,489	3,025	3,225	5,779

Notes:
^aCSPA = Countywide Stream Protection Strategy. See EXPLANATION below.

^bEach year the Department of Environmental Protection monitors streams in about 20% of County watersheds, enabling a complete CSPA re-evaluation of stream conditions over a 5-year cycle. The percentages are affected by the existing land uses in the watersheds being monitored.

^cStaff estimates that 25% of the streams in priority subwatersheds are in need of restoration.

^dThese figures include about 1.3 workyears, originally budgeted for stream monitoring, that have been reallocated to accomplish other related County monitoring priorities. The Department of Environmental Protection proposes to monitor about the same number of baseline stations as in FY06 as well as continue a new, intensive study of urban stormwater management effectiveness in the rapidly developing Clarksburg Master Plan area. For FY07, staff estimates the needs for reallocating a portion of stream monitoring time as follows: 80 hours for NPDES permit monitoring, 120 hours to continue the Clarksburg Best Management Practice Study; 40 hours to continue with a pilot regional study to assess sources of bacterial contamination in the interjurisdictional Anacostia watershed; 40 hours to respond to periodically occurring sediment spills which require cleanup of streams and wetlands; 40 hours to monitor water bodies for potential mosquito infestations; 40 hours to respond to pollutant spills; and 80 hours to reintroduce native fish into Sligo Creek as part of ongoing restoration efforts in that watershed. This leaves an estimated 1,040 hours available for baseline stream monitoring in FY07. Although watershed coverage for updating the CSPA will not be quite as detailed as before, it will still be adequate for presenting a comprehensive assessment of Countywide stream conditions.

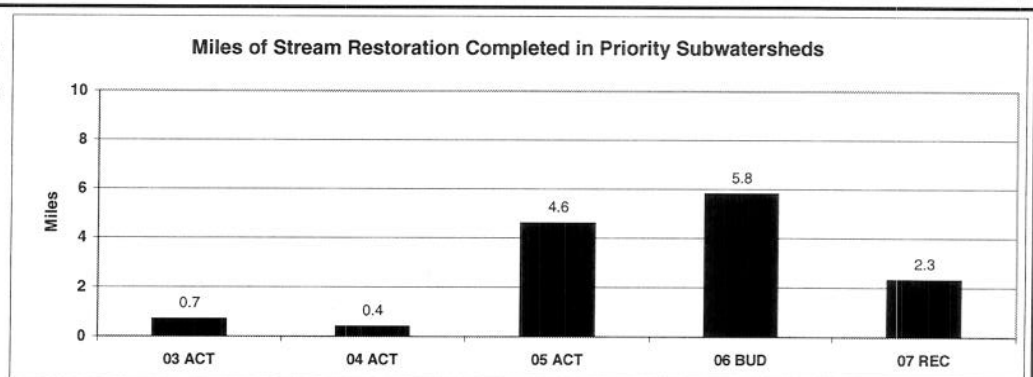
^eThe increased average design time reflects primary work on T21 grant projects and more complex contracting and review requirements for these projects.

^fOperating staff only. Excludes CIP workyears and funding.

^gOnly County and State CIP funds are shown here. The Corps of Engineers manages these projects and uses Federal contracts to build the projects. The County pays a percentage of the project cost to the Corps.

EXPLANATION:

The Countywide Stream Protection Strategy (CSPA) ranks water quality conditions in all County streams. These rankings were used to identify 99 "priority subwatersheds" in need of restoration. The chart tracks the growth in CIP investments to design and construct stream restoration projects and new stormwater controls primarily targeted at improving the protection of streams in "priority subwatersheds." It is currently estimated that restoration of streams within priority watersheds will require about 19 years at current funding levels and implementation rates.



PROGRAM PARTNERS IN SUPPORT OF OUTCOMES: Department of Permitting Services, Department of Public Works and Transportation, Maryland-National Capital Park and Planning Commission, Maryland Department of the Environment, Maryland Department of Natural Resources, U.S. Army Corps of Engineers, environmental groups, citizen groups, businesses.

MAJOR RELATED PLANS AND GUIDELINES: Countywide Stream Protection Strategy (CSPA); Montgomery County Strategic Plan for Water Quality Protection; Montgomery County Approved Capital Improvements Program; Water Quality Review law and regulations.